



# Volunteer Lake Assessment Program Individual Lake Reports

## SPECTACLE POND, ENFIELD, NH

### MORPHOMETRIC DATA

Watershed Area (Ac.):	808	Max. Depth (m):	5.5	Flushing Rate (yr <sup>-1</sup> )	1.4	Year	Trophic class	KNOWN EXOTIC SPECIES
Surface Area (Ac.):	108	Mean Depth (m):	3	P Retention Coef:	0.68	1982	OLIGOTROPHIC	
Shore Length (m):	4,200	Volume (m <sup>3</sup> ):	1,313,500	Elevation (ft):	1183	1995	OLIGOTROPHIC	

### TROPHIC CLASSIFICATION

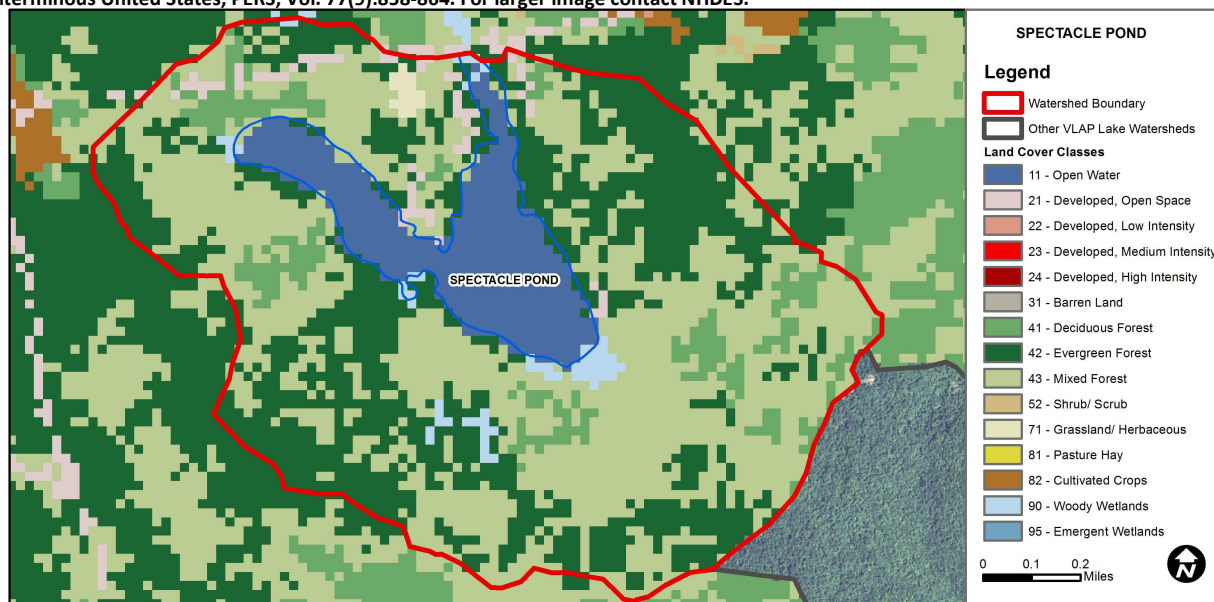
### KNOWN EXOTIC SPECIES

The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	Good	>=5 samples and median is < threshold but > 1/2 threshold value.
	pH	Cautionary	< 10 samples and 1 exceedance of criteria. More data needed.
	D.O. (mg/L)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	D.O. (% sat)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	Chlorophyll-a	Good	>=5 samples and median is < threshold but > 1/2 threshold value.
Primary Contact Recreation	E. coli	Good	Geometric means < criteria; however at least 1 exceedance of the single sample criteria occurred.
	Chlorophyll-a	Encouraging	< 10 samples and no exceedance of criteria. More data needed.

### WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.



Land Cover Category	% Cover	Land Cover Category	% Cover	Land Cover Category	% Cover
Open Water	11.3	Barren Land	0	Grassland/Herbaceous	0.45
Developed-Open Space	1.78	Deciduous Forest	6.88	Pasture Hay	0
Developed-Low Intensity	0	Evergreen Forest	32.83	Cultivated Crops	0
Developed-Medium Intensity	0	Mixed Forest	45.06	Woody Wetlands	1.7
Developed-High Intensity	0	Shrub-Scrub	0	Emergent Wetlands	0



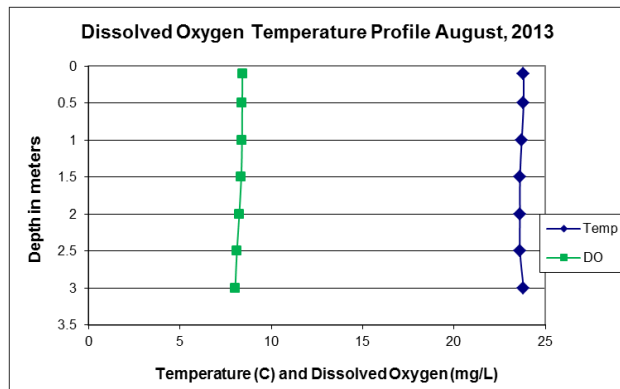
# VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

## SPECTACLE POND, ENFIELD, NH

### 2013 DATA SUMMARY

#### OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphics)

- CHLOROPHYLL-A:** Chlorophyll levels were low and less than the state median.
- CONDUCTIVITY/CHLORIDE:** Epilimnetic conductivity and chloride was low and approximately equal to the state medians. Outlet conductivity and chloride were slightly elevated and potentially indicative of impacts from road salting or septic systems.
- TOTAL PHOSPHORUS:** Epilimnetic and Outlet phosphorus levels were low and less than the state median.
- TRANSPARENCY:** Transparency was very good and the Secchi disk was visible on the pond bottom.
- TURBIDITY:** Epilimnetic and Outlet turbidities were low.
- pH:** pH levels were sufficient to support aquatic life.
- DISSOLVED OXYGEN:** Dissolved oxygen was high throughout the water column and sufficient to support aquatic life.
- RECOMMENDED ACTIONS:** Continue chloride monitoring at the Outlet and Epilimnion to monitor trends. Increase monitoring frequency to better assess summer water quality and historical trends.



Station Name	Alk.	Chlor-a	Chloride	Cond.	Total P	Trans.		Turb.	pH
	mg/l	ug/l	mg/l	uS/cm	ug/l	NVS	VS	ntu	
Outlet			11	66.3	10			0.61	6.52
Epilimnion	6.20	3.16	5	38.7	6	3.00	3.50	0.56	7.06

**NH Median Values:** Median values for specific parameters generated from historic lake monitoring data.

**Alkalinity:** 4.9 mg/L  
**Chlorophyll-a:** 4.58 mg/m<sup>3</sup>  
**Conductivity:** 40.0 uS/cm  
**Chloride:** 4 mg/L  
**Total Phosphorus:** 12 ug/L  
**Transparency:** 3.2 m  
**pH:** 6.6

**NH Water Quality Standards:** Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.

**Chloride:** < 230 mg/L (chronic)  
**E. coli:** > 88 cts/100 mL – public beach  
**E. coli:** > 406 cts/100 mL – surface waters  
**Turbidity:** > 10 NTU above natural level  
**pH:** 6.5-8.0 (unless naturally occurring)

#### HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation	Parameter	Trend	Explanation
pH	N/A	Ten consecutive years of data necessary.	Chlorophyll-a	N/A	Ten consecutive years of data necessary.
Conductivity	N/A	Ten consecutive years of data necessary.	Transparency	N/A	Ten consecutive years of data necessary.
			Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary.

